

**Alternative Energy Committee
September 5, 2014**

Members present: Larry Bean, Chair; Glenn Carlson, Tom Banner and Carl Frederickson
Members absent: Burke Henry, Vice Chair
Town Staff Present:
Public present:
Also present: Scott Robinson, Chippewa Valley Alternative Energy; (CVAE)
David Harrington, Common Sense Development, LLC (CSD)
Chris Gamer, Common Sense Development, LLC

1. Call to order.

The Alternative Energy Committee (AEC) meeting called to order by Chair L. Bean on Friday, September 5, 2014 at 10:01am.

2. Minutes of the following meetings to be considered for approval:

A. August 20, 2014.

L. Bean would like reflected in the minutes the spreadsheet B. Henry submitted at the meeting which shows the kWh/year and the % of the total used by each Town facility. The spreadsheet also shows the total cost per year at varying rates. This is valuable information. Thank you to B. Henry. The spreadsheet is hereby attached to the minutes. *To be noted: the spreadsheet has since been revised.*

C. Frederickson is now present (10:02am).

The spreadsheet shows that the first three Town facilities carry 50% of the load for the entire Town; the Rec Center uses as much energy as the Town Hall and the Airport/Garage/SSE are all in the same general area and carry more of a load than shown individually.

L. Bean said the Town Board was highly complementary to this committee at the 8/26/2014 Town Board meeting. The Board asked if the committee would come back with suggestions to improve efficiency. L. Bean said we will be back.

Motion by G. Carlson to approve the August 20, 2014 Alternative Energy minutes as amended, second, T. Banner, all in favor, all aye, motion carried.

3. Contract Development with Chippewa Valley Alternative Energy

To be noted: As I did not know who was speaking I will use CVAE (Chippewa Valley Alternative Energy)/CSD (Common Sense Development).

L. Bean brings forward the following comments in regards to the Statement of work:

Item #10 “these will satisfy RFP, utility and fee requirements”. The RFP (Request for Proposal) was confusing as it looked as if we were going to issue an RFP, which we will at some point, but not now.

Need to make clear that when we say “Town of La Pointe’s electric energy needs” we say the Town of La Pointe’s “Municipal” energy needs.

The word contractor sometimes implies construction. After discussion agreement to keep the word contractor.

The Town Attorney, Michael Fauerbach suggested that the following language be included: an umbrella policy; the Town named as insured and a hold harmless agreement. If there are regulatory issues a Statement of Regulatory Compliance also needs to be added.

G. Carlson will work this out with the Town Attorney and Town Administrator.

Question from CVAE/CCD: To be clear - what we give you is the ability to release an RFP. Agreement by the committee that is correct.

CVAE/CCD said when discussing the Town of La Pointe Emergency Plan the wastewater treatment facility did not have a meter. G. Carlson said this is because the Madeline Sanitary District (MSD) is a separate taxing district.

CVAE/CCD asked if there is one transfer pump that pumps all the way from the lake to the MSD lagoon because if this is a Town critical load, if one end is powered and the other is not, does it still function? This will need to be addressed in Phase 2, the part that has to do with crossing right of ways. Committee agrees that CVAE/CCD will need to talk to the Sanitary District.

CVAE/CCD suggested that the focus be on two different areas:

Phase 1: A solar solution. Phase 2: The microgrid. G. Carlson said the Sanitary System would be Phase 2.5. CVAE/CCD said if we are looking at a microgrid and if we could have the MSD buy in and if we can use their methane as a fuel source we would not be importing oil. That is basically why we would want the Sanitary District buy-in. CVAE/CCD said they would take the MSD off the table for now. The committee said they would look for an alert from CVAE/CCD that taking this off the table would have these consequences.

CVAE/CCD said the School District of Bayfield controls the school but if the school is part of the emergency plan we want to make sure there is power. L. Bean said the EMS building was the main emergency gathering place because the EMS building has showers and other options for providing heat which the School does not.

L. Bean or G. Carlson will request the annual energy figures for the MSD and the School District of Bayfield.

L. Bean said the template looks good but we need to discuss the timetable as listed on the RFP. According to the timetable a contract would be written up by sometime next week. A progress meeting is set for Sept 30 or Oct 1st. CVAE/CCD said a 6-8 week timeline is needed to get the final report prepared. L. Bean said October 31st could be date to submit the final report, the only constraint being a grant deadline.

CVAE/CCD said they have been in contact with Xcel – and that contact caused them to go to the Public Service Commission (PSC) because they felt Xcel was limiting what we could do. Xcel said we could put a 100kW system on the landfill but nowhere else. The PSC said realistically you could put a 100kW system on each meter; however, there are 4 tariffs and an interpretation of the tariff which are two separate things. [tariff: the price of energy under contract. There are two components in a tariff – a fixed charge (service charge) and variable (usage charge)].

The load on the municipal list is between 130 and 150kW to do a net metering of a zero out of your bill. If you are looking at the money part of this you would look at just the kWh. If you are looking at designing a microgrid that is based on renewable energy, that is different because we have to be able to size the rays to power your needs when you are producing the least amount of power. We would be way overproducing in the summer when the Island itself needs more power. Then there are contract negotiations about where we can get the price points to fall for over production which will have implications also.

CVAE/CCD is looking at giving an optimal and an alternative proposal which would be sent simultaneously to this committee, Xcel and the PSC so they can see we are serious and that we

are trying to understand the tariff. The PSC is in the center. When a new tariff comes up it is voted on and they want to help the grid and also the consumer who produces their own energy. In the past when a solar installation was expensive this was not an issue but now people can afford solar. Xcel would rather see a consumer cover their load and not produce power that they would have to pay the consumer for. There is also the capacity factor – the value of adding solar on the Island which should be looked on very positively by a utility because it helps boost the stability of the grid. As we go forward there will be some negotiations with Xcel.

L. Bean said Barb Nelson, Administrative Assistant, sent a memo to department heads letting them know about this meeting. Lisa Potswald, Planning and Zoning Administrator has a packet for CVAE/CSD that includes plat maps, property records, utility records and aerial views of each municipal property.

CVAE/CSD suggested that the Town conglomerate their meters. According to the PSC (Public Service Commission), if there are 3 meters on one site you could connect the buildings with one meter and eliminate the \$20/meter monthly charge twice – as long as you did not cross a right of way. To be noted is that MRF, EMS and Winter Transportation facilities are adjacent to one another so there would not be a crossing of right of way issues.

Town Hall, Clinic and Library: would have to cross a right of way to get to the Town Hall. The Town also owns the lot behind the Clinic/Library adjacent to the Whitefish parking lot. This could be a potential solar array site.

CVAE/CCD said a microgrid is more of a security tool. Net metering is financial. Question if we went forward with net metering could we put in a microgrid at a later date. CVAE/CCD said you could have the functionality of a microgrid by having a series of systems which is not as resilient as a microgrid because the system is storage dependent. A microgrid would use several fuel options for firming up power as opposed to being storage dependent. You need permission from the utility to install solar but you would not need permission for storage because the storage would just be another load you would have on the meter because you would be basically charging the batteries right off the grid.

Question if the first product could be sized as a microgrid without the microgrid so you were able to generate more power and sell that power at 3 to 12 cents per kWh. CVAE/CCD said instead of being compensated for the kWh you could get compensated for the capacity. Looking at MN tariffs instead of WI tariffs, if your installed capacity is 100KW or more, Xcel is required to pay you \$5.15/Kwh for your capacity to deliver. So that would be 3.5 cents plus the \$5.15. This is not in the WI tariff but it is a negotiating point. The other thing is that crossing the right of way to sell power to someone else is one thing but crossing the right of way to meet the security needs of a township is different. These are negotiating points.

CVAE/CCD said they will give the committee both the net metering and financials and also the microgrid the financials. The spreadsheet they have developed gives them the ability to say how much electric capacity we get from solar as opposed to a microgrid based on the existing tariff without any other negotiations.

L. Bean said what he would look for is to lay out the optimal and then lay out the barriers. CVAE/CCD said this narrows the scope and raises the tone i.e.: This is the way it should be done from a logical standpoint and these are the issues we need to deal with.

G. Carlson asks who he should send the contract to. Agreement to send the contract to Scott Robinson. G. Carlson leaves at 10:45am.

CVAE/CCD said the DNR is supposed to have their portion of the exemption at the landfill to us today. We will need to provide three different anchoring/ballasting types of systems for this committee to choose from: a low cost/lower quality product, a medium product and a higher end product. L. Bean said we are looking for a manually, easily adjustable product. Need to measure the landfill and find out how much fill/clay is needed. Will talk to Arnie Nelson, Nelson Construction. To be noted, the landfill is not vented.

CVAE/CCD said they have been in contact with the FAA in regards to the Airport facilities. The FAA has a program where you give the FAA latitude and longitude and they calculate the reflective light off the surface at the angle it is at. Just to the north of the three buildings at the airport you could cut into the woods which would actually add a solar glare barrier. This would be the same situation if we wanted to add solar to the lagoon pond system. This could be part of an introduction to find out the MSD electric consumption by saying this is how we could eliminate their electric bill.

#5: Question of "other permits for work to be done on the island." L. Bean said the Planning and Zoning Administrator is responsible for zoning.

7 is Finance. Need to consider the full load of municipal use +/- 10% growth. The Library wants air-conditioning so that is a load increase. To be noted is that the Library is a one-third partner in this project and we need to hear from them. Will meet with Connie, Library Director, later today.

CVAE/CCD said Xcel brought up the idea of an electrical vehicle. There is not a car that is grid interactive. You can charge the car with solar but if you look at going to a utility service vehicle; you can get 24kW of storage with it. In order to identify the cost of the vehicle you have to know what the use is – fire truck, bus service? The use of this type of vehicle for emergency services has the advantage of not being dependent on fossil fuels.

CVAE/CCD said the other site that is really constricted by the right of way is the dock and there is no way to address emergency services without the dock so that is a really strong argument to say we can put this wire here. Question of who owns the brushed lot next to Joni's Beach because you could put solar there and then run a wire under the water to the dock and not have to cross a right of way, but that is not optimal.

Another site for solar could be on Rice Street.

CVAE/CCD wants to do Phase I in such a way that Phase 1 could be efficiently upgraded to Phase 2. L. Bean asked in terms of grant appeal does the solar microgrid has more grant opportunities than just a solar array. CVAE/CCD said yes, a lot.

L. Bean leaves the meeting to set up meetings with Arnie Nelson, Nelson Construction, Connie Ross, Library Director and Kristian Larson, Town Foreman.

Discussion of other sources of funding such as a geobond.

L. Bean returns to meeting. Will meet with the Town Foreman, Kristian Larson at 1:00pm and Connie Ross, Library Director after that.

L. Bean said this committee hopes that CVAE/CCD is fully engaged in our mission on the Island which is increasing efficiency as well as sustainability. In terms of efficiency we could easily drop 20% from our municipal electric use but we need some direction to take to the Town Board as to how to do this.

Lighting. We have a quote at \$1,000/\$2,000 per pole, total \$20,000 which would have to be put into the budget. The Town Foreman could help with locating a contractor and bidding. A local electrician could do the work if we had a bucket truck.

CVAE/CCD said you really want to roll efficiency issues into the solar project. A one to two year payback on the lights is going to buy down the expense of the solar.

L. Bean said wood fired boilers were discussed but the quick reaction was that there was not a lot of interest because of the labor vs. propane cost and also air quality. CVAE/CCD said you could look into a wood gasification. Also, if you cleared the land, used the wood, you could use the cleared area for agriculture. L. Bean said there is a local food interest on the island.

CVAE/CCD said there are hazelnuts on the Island which is a sustainable food and wood source. CVAE/CCD now leaves the meeting.

4. Budget recommendations for the Town Board.

L. Bean will be at the Town Board meeting on September 23rd in regards to the budget. Would like to recommend to changing all lights into more efficient lighting.

Motion by L. Bean to recommend to the Town Board to focus on lighting and increase the efficiency of the top three users. Second, T. Banner. All in favor, all aye. Motion carried.

5. Recommendations for Town Staff actions in 2014-15.

Covered.

6. Advisory Team suggestions for Solar Micro-grid project.

Agreement to ask Xcel (Mike BeBeau), the DNR (Bob Germer, or others), the U of WI-Madison (will attempt to get hold of them), and Lauren Azar, ~~Attorney the Energy Secretary~~ to be on the Advisory Team.

7. Tour and site visits of Town facilities with Chippewa Valley Alternative Energy.

Tour will take place after this meeting.

8. Grant Opportunity discussion.

Xcel has funds available. Need to be aware of grant deadlines. Suggestion to create a newsletter or brochure to bring the community up to date regarding energy on island.

9. Set next meeting and agenda.

Next meeting is set for Monday, September 22, 2014 at 10am.

10. Adjourn.

Motion by L. Bean to adjourn, second, T. Banner. All in favor, all aye, motion carried.

Meeting adjourns at approximately 11:45 am.

Minutes taken from recorder and respectfully submitted by Kathy Erickson, Clerical Assistant
Minutes approved as corrected, changes struck through; corrections in italics.